



MA State House



DIVISION OF  
CAPITAL ASSET  
MANAGEMENT &  
MAINTENANCE



**MAFMA Semi Annual Meeting**  
**April 29, 2021**

# Agenda

- **DCAMM Commissioner Carol W. Gladstone**

**“DCAMM Strides in DM ”**

**Sarah Creighton, Energy Planner**

**“Executive Order 594 Decarbonizing and Minimizing Environmental Impacts”**

**Neil Cohen, Inspector General’s Office**

**“Proprietary Specifications and Purchases”**

- **Susan Ruch, DCAMM Director of Environmental Services**

**“OFMM’s Environmental Services Team (ENV).**

**Tips regarding projects involving (PCBs)”**

- **Noel Jordan, CAMIS Program Coordinator**

**“CAMIS Corner”**

- **David Hodge, Burnell Controls, Inc.**

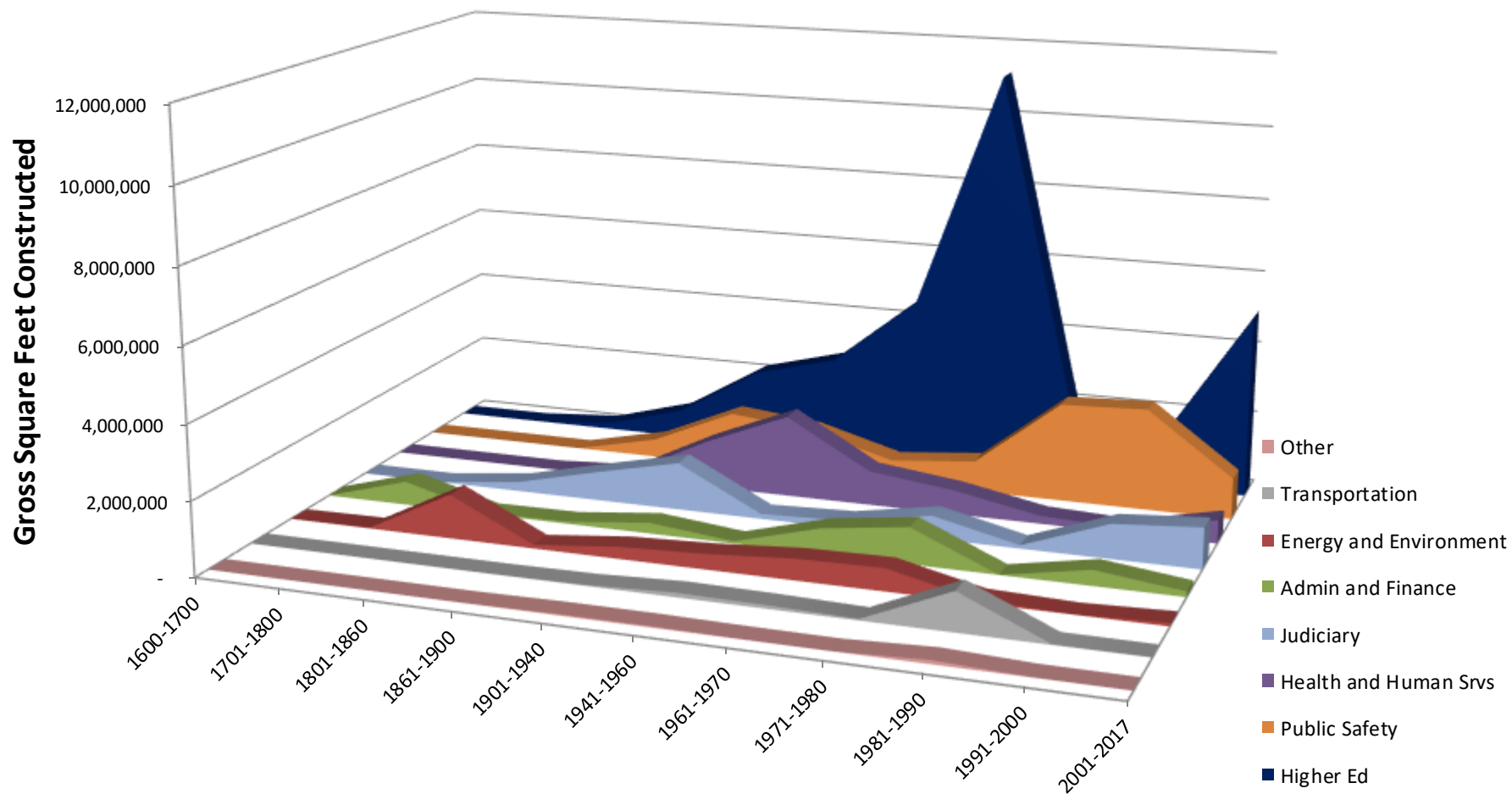
**“Controlling Your Facility Remotely”**



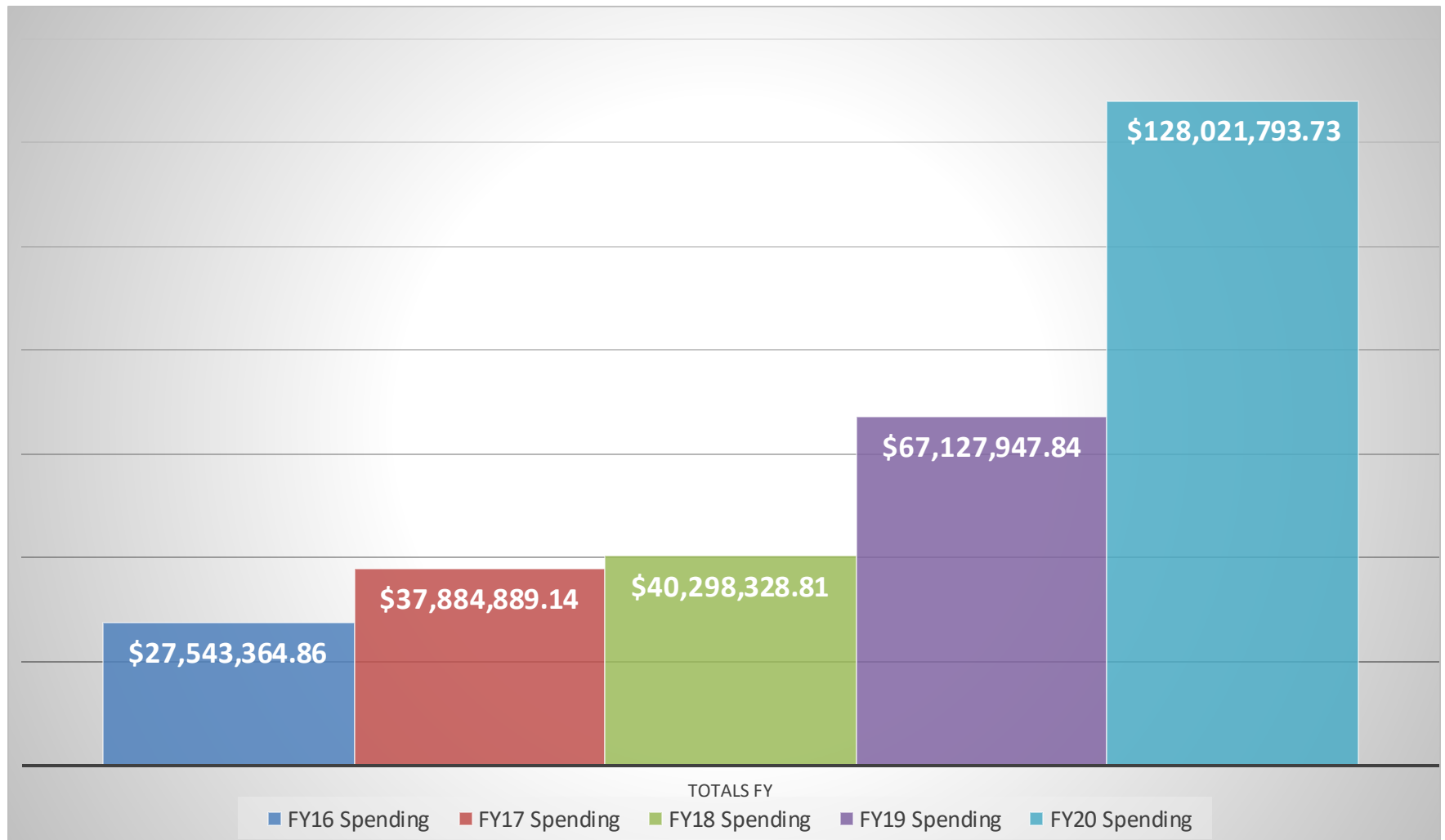
# Strides DCAMM is Making

- Status of our State Building Portfolio
- Deferred Maintenance Spending
- DM Five Year Planning Evolution
- Facility Condition Assessments/ Deficiencies
- Facility Condition Index
- DM Process Improvements

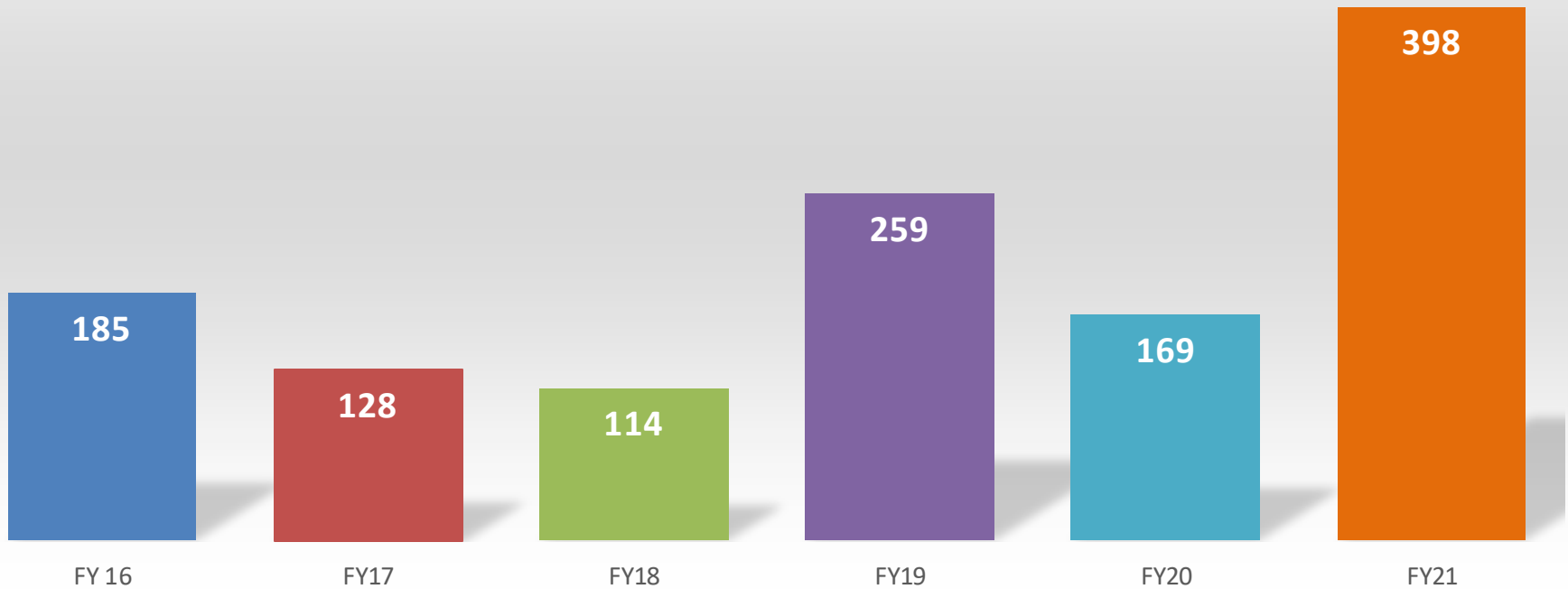
# Composition of Active State Building Portfolio by Original Year of Construction



## FY 16-FY 20 Deferred Maintenance Spending



# FY16-FY21 Total Number Of DM Projects Transferred To Date-1253



Deferred  
Maintenance  
Star  
Performers  
FY 16-FY21

EOHHS-Department of Public Health 65 Projects

EOPSS-Department of Correction 94 Projects

Sheriffs-Suffolk Sheriff Department 28 Projects

UMASS-University of Mass Lowell 45 Projects

State Universities-Worcester State University 46 Projects

Community Colleges-Springfield Tech 40 Projects

Judiciary-Trial Courts 140 Projects

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# Facility Condition Assessments

Consistent with a state-wide effort to improve the maintenance of existing assets, DCAMM is seeking information that will identify investment priorities and support predictable funding for capital renewal.

# Facility Condition Deficiencies in CAMIS

https://camis.dcp.state.ma.us/ - FCA Deficiencies - CAMIS - IBM TRIRIGA

FCA Deficiencies

Add To Bookmarks Export Cancel

Date : 04/05/2021 11:37:00

## FCA Deficiencies

Related Reports -Select- FCA Deficiencies

209 total found Apply Filters Clear Filters Show More Filters Show: 1000

| System ID  | Sightlines ID | Site Code | Site Name               | Building Code | Building Name           | Name                 | CAMIS Number | Total Estimated Cost | DCAMM Project Type | Inspection Date | Project Input Year | Priority   | Timeframe | Building System Class              | Status | System Condition |
|------------|---------------|-----------|-------------------------|---------------|-------------------------|----------------------|--------------|----------------------|--------------------|-----------------|--------------------|------------|-----------|------------------------------------|--------|------------------|
| 2000029596 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred Maintenance |              | \$55,000.00          | Capital Project    | 10/05/2018      | 01/01/2018         | Priority 1 |           | D1010 - Vertical Conveying Systems | Draft  | Fair             |
| 2000029597 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred Maintenance |              | \$5,000.00           |                    | 10/06/2018      | 01/01/2018         | Priority 1 |           | C1030 - Interior Doors             | Draft  | Poor             |
| 2000029598 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred Maintenance |              | \$107,100.00         |                    | 10/07/2018      | 01/01/2018         | Priority 1 |           | C1030 - Interior Doors             | Draft  | Poor             |
| 2000029599 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred Maintenance |              | \$20,000.00          |                    | 10/08/2018      | 01/01/2018         | Priority 1 |           | G2040 - Airfields                  | Draft  | Poor             |
| 2000029600 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred Maintenance |              | \$516,900.00         | Capital Project    | 09/18/2018      | 01/01/2026         | Priority 3 |           | C20 - INTERIOR FINISHES            | Draft  | Good             |
| 2000029601 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred Maintenance |              | \$13,600.00          |                    | 10/09/2018      | 01/01/2018         | Priority 1 |           | C1030 - Interior Doors             | Draft  | Poor             |
| 2000029602 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred Maintenance |              | \$35,000.00          |                    | 10/10/2018      | 01/01/2018         | Priority 1 |           | C1030 - Interior Doors             | Draft  | Poor             |
| 2000029603 | HLY001        | HLY00     | Soldiers Home - Holyoke | 256HLY0010    | Soldiers Home - Holyoke | Deferred             |              | \$20,700.00          | Capital            | 10/11/2018      | 01/01/2018         | Priority 1 |           | B3010 -                            | Draft  | Poor             |

Add To Bookmarks Export Cancel



# Facility Condition Index

Facility Condition Index (FCI)  
*An industry standard parametric  
tool used to compare relative building conditions.*

$$\text{FCI} = \frac{\text{total cost of existing deficiencies}}{\text{current replacement value}}$$



# Improvements to DM Process

- Simplified Study Template with Instructions
- On-line Training Webinars
- E-Builder for Quicker Funding Approval
- E-Builder for Quicker Study Certification
- DM Multiyear Planning
- Coordination with DCAMM Accessibility, Energy and Environmental Departments

# Executive Order 594

## Decarbonizing and Minimizing Environmental Impacts of State Government

- Updates EO 484
- Focus on reducing fossil fuels
- Buildings and Vehicle in State Government



CLIMATE ACTION

# Sets Aggressive New Goals

| Objective                                 | Baseline | Current Progress | 2025        | 2030 | 2040 | 2050 |
|---|----------|------------------|-------------|------|------|------|
| Reduce emissions from onsite fossil fuels | 2004     | -16%             | -20%        | -35% | -60% | -95% |
| Reduce fuel oil use                       | 2004     | -85%             | -90%        | -95% | TBD  | TBD  |
| Energy Use Intensity                      | 2004     | -13%             | -20%        | -25% | TBD  | TBD  |
| EV charging stations                      | N/A      | 225              | 350         | 500  | TBD  | TBD  |
| Zero emissions vehicles in state fleets   | N/A      | <1%              | 5% of fleet | 20%  | 75%  | 100% |



| Topic   | Date                                     |
|---|--|
| Electrifying State Fleets                                 | May 6: 1-3pm                             |
| LBE Council Meeting<br>Overview of New EO and Legislation | May 11: 10-12<br>Repeated May 11: 3-4 pm |
| Buildings and Existing Facilities                         | June 10: 1-2                             |
| State Fleets and the Needed Infrastructure                | June 16: 11-12                           |
| Implementation of the EO Goals                            | June 24: 1-2                             |

Register at: <https://bit.ly/32T9nZ5>





# Proprietary and Sole Source Specifications

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MA Procurement Laws





# Objectives

- Define proprietary and sole source issues under MA procurement law
- Outline the pros and cons of using proprietary and sole source



# Procurement Refresher

- Chapter 30B
  - \$10,000 or less = sound business practices
  - >\$10,000 and \$50,000 or less = price quotations
  - Over \$50,000 = bids (IFBs) or proposals (RFPs)
  - Surplus supplies and real property have different thresholds and guidelines
- Chapter 30, Section 39M and Chapter 149
  - Under \$10,000 = sound business practice
  - \$10,000 - \$50,000 = price quotation process, advertising, bonding
  - Can use Chapter 30B for construction materials under \$50,000



# Procurement Refresher - continued

- Chapter 30 & Chapter 149

- Between \$50,000 - \$150,000 = use Chapter 30 (section 39M) formal bidding process
- Above \$150,000, follow formal bid process in Chapter 30 for public works projects and Chapter 149 for building-related projects
- Over \$10 million for Chapter 149 projects = different rules
- Other rules may apply. Prevailing wage law ALWAYS applies

<https://www.mass.gov/doc/charts-on-procurement-procedures-effective-june-15-2018/download>





# Proprietary Specifications

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## Proprietary and Sole Source Specifications



# Chapter 30B

- Purchase of supplies, services, construction materials (or can use Chapter 30, Section 39M)
- Allows but discourages proprietary specifications
- Allows but severely limits sole source procurement



# Proprietary Specifications

- What is a proprietary specification?
- Brand name
  - Specification written so restrictively that it limits the procurement to one product
- Avoid unless necessary



# Proprietary Specifications

- Permitted only when no other manner of description will suffice



# Necessary?

- Must ask yourself WHY you need this specific supply or service
- Can you defend the decision?
  - With confidence.....
  - With clear data, facts, rationale.....





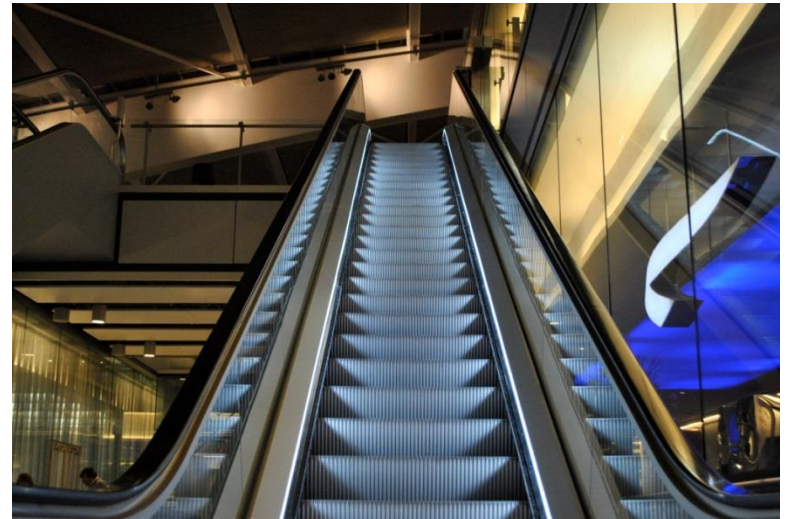
# Brand Name vs. Generic

- Brand Name:
  - Thermos® (Thermos)
- Generic Name:
  - Vacuum Flask



# Brand Name vs. Generic

- Brand Name:
  - Escalator® (Otis Elevator)
- Generic Name:
  - Moving staircase



# Brand Name vs. Generic

- Brand Name:
  - Smartboard® (Smart Boards)
- Generic Name:
  - Interactive white board



# Brand Name vs. Generic

## Brand Name (Ford)

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## Generic (Pickup Truck)

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# Brand Name vs. Generic

**Brand Name (John Deere)**

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**Generic (Tractor)**

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# Brand Name vs. Generic

## Brand Name (Zamboni)

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## Generic (Ice Resurfacer)

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# Proprietary Specifications

- Instead...use characteristics or design features you need
- Personal preference should not be a factor
- Track record can be one factor
- Aesthetics – “I like the way it looks” needs more justification



# Proprietary Specifications

- If you require the use of a proprietary supply or service:
  - Document why you need the brand name
  - Document that competition exists for the supply or service
  - Proprietary item without competition = sole source





# Possible reasons for Proprietary Specifications

- Existing warranty issues
- Compatibility
- Fleet management costs
- Cost-benefit analysis
- Unique characteristics that are nec
- On a state or collective contract



# Proprietary Specifications

- Remember the universal principles of procurement
  - Promote competition and fairness
  - Fair, open, robust competition saves tax dollars
  - Open and transparent processes promote integrity and public confidence in government

Remember: you're spending someone else's money



# Chapter 30 (Section 39M) and Chapter 149

- Proprietary specifications can only be used if:
  - “in the public interest,”
  - for “sound reasons,” and
  - after a “reasonable investigation” – you have an obligation to ensure that acceptable alternatives exist even if you prefer the proprietary item



# Chapter 30 and Chapter 149

- Must allow for an “or equal.” Ex: Acme Widgets or equal
  - “or equal” reviewed post-bid and determined by the jurisdiction if it is appropriate. Must justify rejecting the proposed “or equal.” Could lead to bid protests, claims, etc.
- Proprietary specifications discouraged
- Determination of reasonable investigation **MUST** be in writing (court decision) – public record/transparency.



# Not a good determination

- “We investigated all options and we firmly believe that the Acme brand widgets are the best value. No other widgets get the same reviews. They are a little more expensive, but we know they will last. We have always used Acme widgets and the engineer prefers them based on experience. We will consider other widget options offered by bidders. ”

Opinions and preferences are not facts





# Sole Source Procurements

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Proprietary and Sole Source Specifications



# Chapter 30B - Sole Source Procurement

- Definition:
  - Only one practicable source for the supply or service exists
  - Impact: contract awarded without soliciting price quotes, bids or proposals



# Chapter 30B - Sole Source Procurement

- Permissible under certain situations
  - Not allowed for more than \$50,000
  - Allowable exceptions (any dollar amount)
    - “...library books, school textbooks, educational programs, educational courses, educational curricula in any media including educational software, newspapers, serials, periodicals, audiovisual materials or software maintenance...”





# Chapter 30B - Sole Source Procurement

- For sole source purchases of \$50,000 or less AND the exceptions
  - MUST conduct a reasonable investigation to determine that:
  - Only one practicable source exists
    - “Personal preference” not permitted
    - Defensible determination (results of the investigation) MUST be put in writing
    - Distribution territories are sole source



# Chapter 30B - Sole Source Procurement

## Best Practices

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- Determine what you need and why you need it
- Purchase only what you need
- Still need a contract and a procurement file
- MUST keep a record including:
  - Vendor's name, contact info, etc.
  - Amount and type of contract
  - Items/services purchased
  - Other relevant information to support your determination



# Chapter 30B - Sole Source Procurement

- The procurement officer shall procure a proprietary item by competition if more than one potential bidder or offeror for that item exists
- If not more than one potential bidder or offeror exists, then it's a sole source issue



# Chapter 30B: Sole Source Procurement

## Common misconception

- A sole source procurement is NOT:
  - The contract awarded to the sole or only vendor responding to request for quotes, IFB or RFP



# Chapter 30B: Sole Source vs. Proprietary

## Proprietary Specifications

- Must use a competitive process
- May be procured from more than one vendor

## Sole Source

- Competitive process not needed when procurement < \$50,000 but sound business practices apply, and other rules mentioned previously
- Limited to one practicable source



# Chapter 30B - Sole Source vs. Proprietary

## Proprietary Specifications

- Over \$50,000 must use a sealed competitive Chapter 30B process
- Follow Chapter 30B rules for under \$50,000

## Sole Source

- >\$50,000, must use the IFB process unless the contract falls under one of the exceptions
- Sound business practices still apply to exceptions



# Chapter 30B Summary

- Sole source is generally not allowed for purchases over \$50,000
- Sole source is allowed for under \$50,000, but you must follow sound business practices, investigate options, and put your determination in writing.



# Chapter 30 (Section 39M) and Chapter 149

- Sole source is prohibited
- Remember: proprietary is different from sole source
  - Example: Benjamin Moore paint is a proprietary product but is not sole source
  - Example: Behr paint is both a proprietary product and a sole source product





# Conclusion

Questions?



# MAFMA Meeting – April 29, 2021

## Environmental Services at DCAMM

- who we are
- services we provide
- roles we play

# Environmental Services Team

## Introductions to the Team

- Lori Anderson
- James B. Matz
- Susan Ruch
- Kenneth Sanderson
- Zhanna Davidovitz

# Environmental Services

- Located within DCAMM's OFMM
  - Provide environmental expertise, support and project management for buildings and properties within DCAMM's care and control
  - Operations, Engineering and Surplus Properties
  - Facilities Resources and Deferred Maintenance
- Also collaborate with other DCAMM offices, including:
  - Planning
  - Design and Construction
  - Real Estate



*former* Monson Power Plant Stack Demolition

# Environmental Services

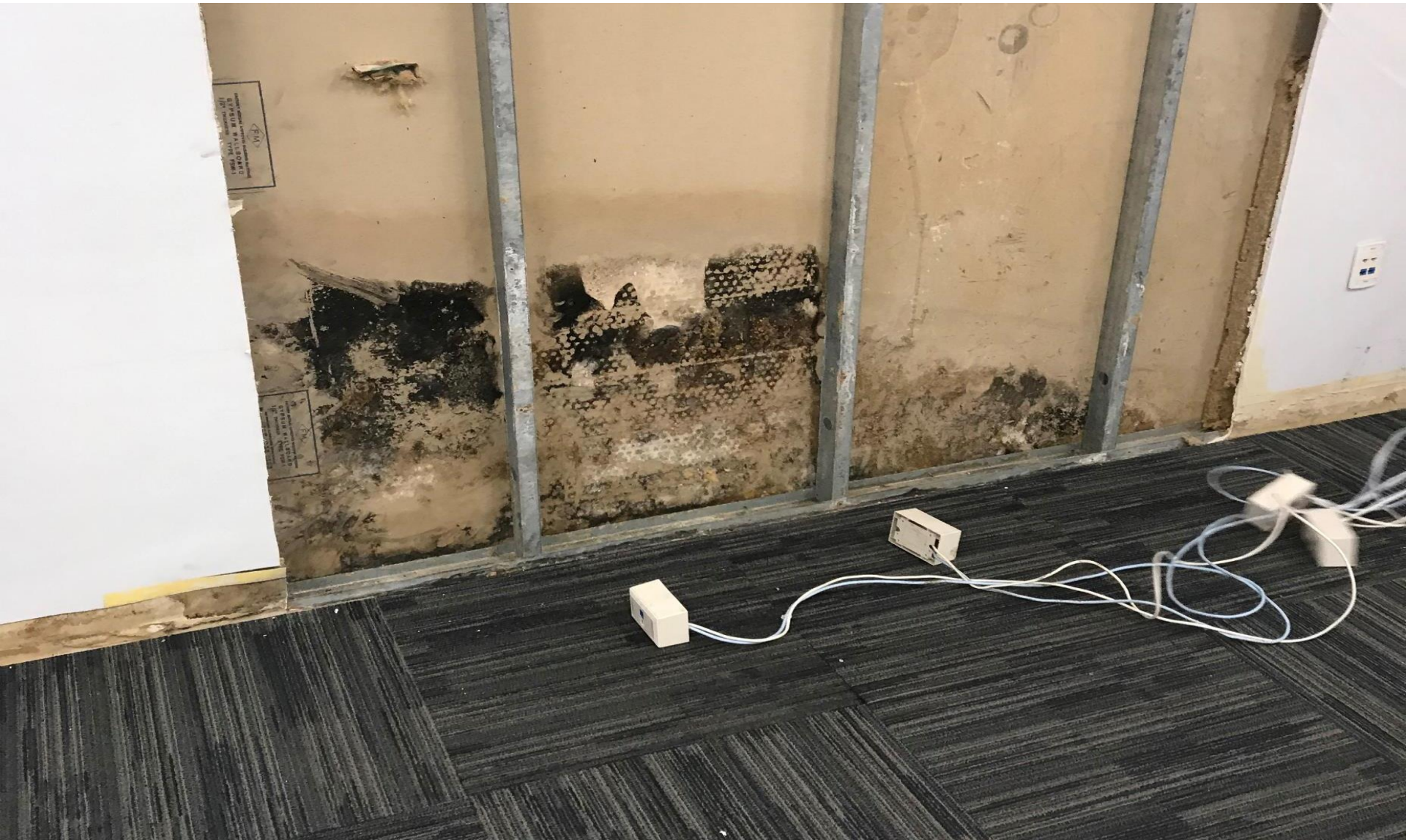
- Environmental Consulting Services
- Project Management Services
- Contract Administrator for PRF67, Statewide Professional Environmental Services Contract
- Training Services

# Environmental Consulting Services

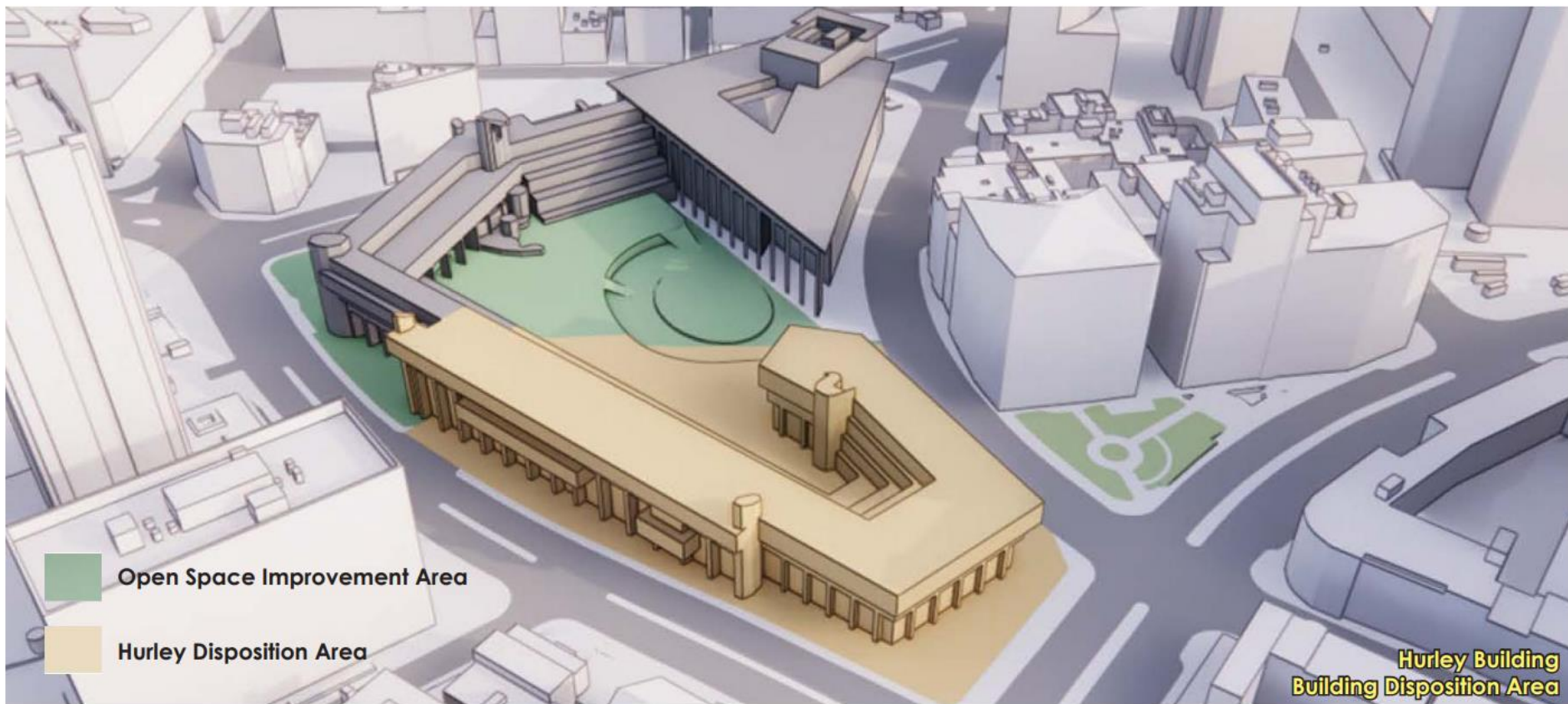
- Regulatory compliance
- Preparation of permit applications, notifications and reporting under applicable state, federal and local requirements
- Due diligence assessments for real estate acquisitions and disposition of property
- Evaluate assessment and remedial options



# Consulting - Mold in a State Office





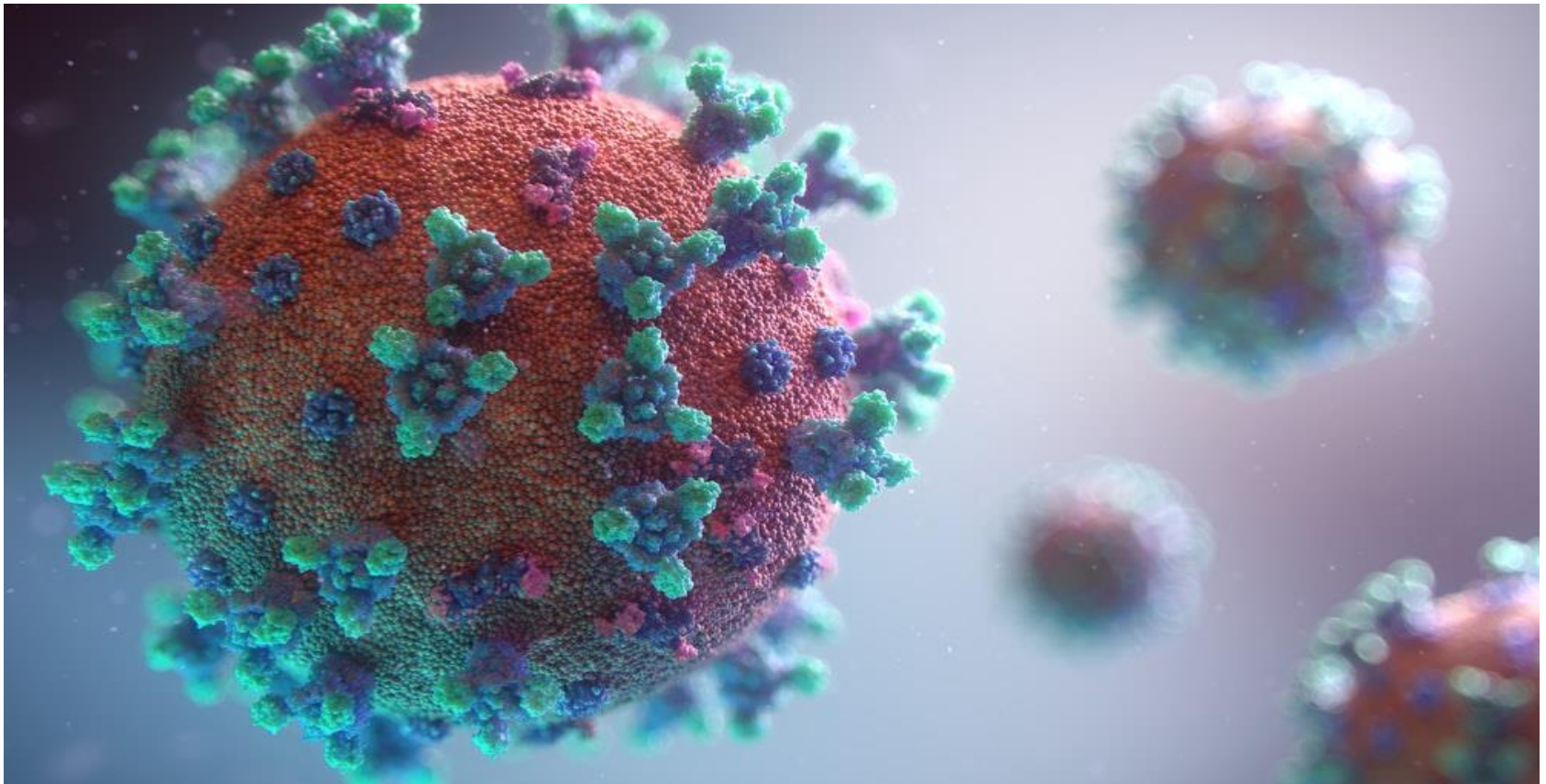


# Consulting with Real Estate

# Consulting – Newton Pavilion Facility

Newton Pavilion Hospital Facility – Boston, MA

**Decommissioning - Cleaning, Disinfection and Sampling**







## Consulting on Drinking Water with Planning and Tewksbury State Hospital

[illegible]

# Consulting – DM – Melrose Armory





# Consulting – DM – STCC



# Project Management Services

- Buildings and properties under DCAMM's care and control, including Surplus Properties
  - Develop scopes, budgets, schedules
  - Manage consultants and contractors from design through implementation phases



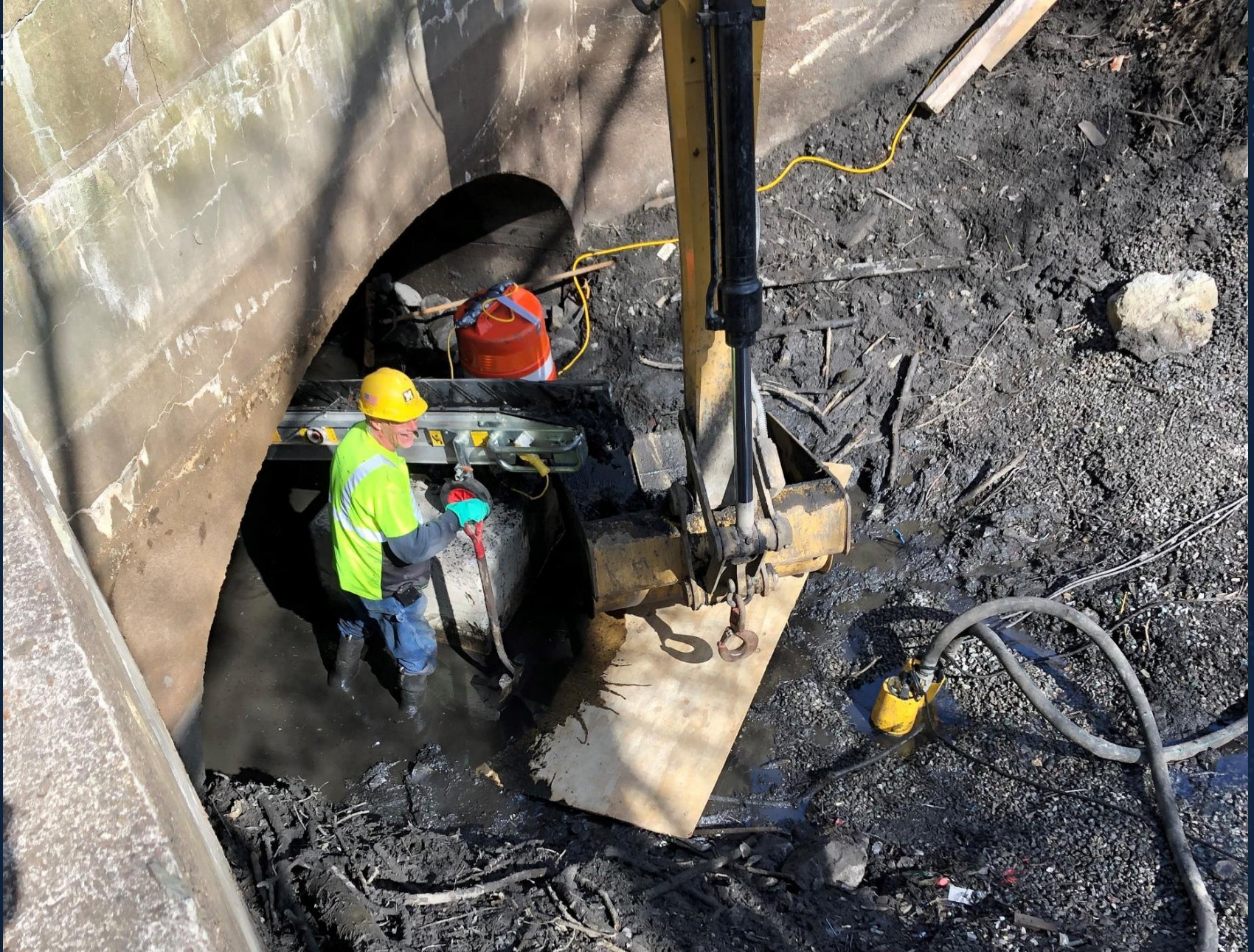
# Canterbury Brook culvert cleanout





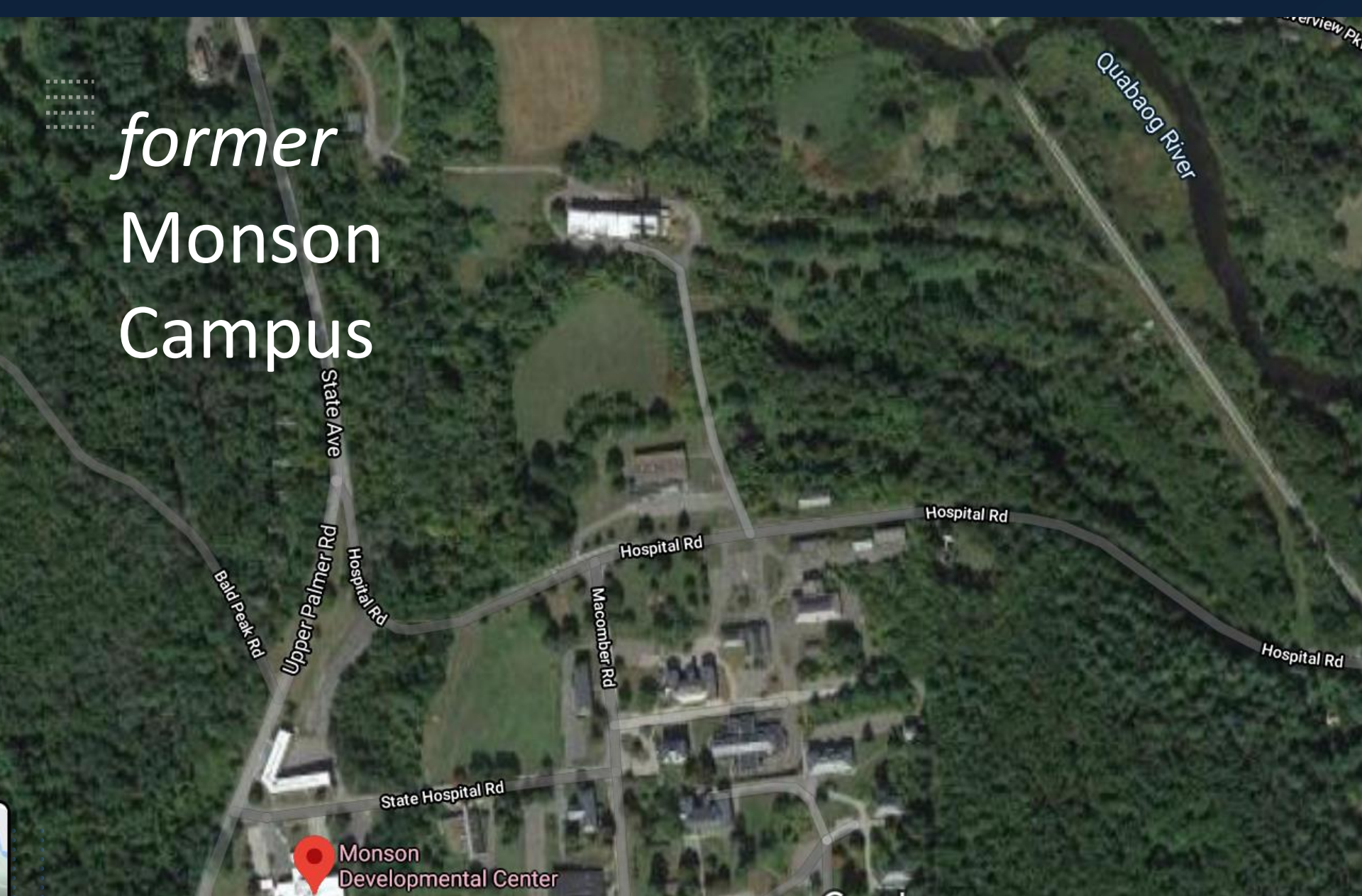








former  
Monson  
Campus



# Landfill Closure in Monson





*former*  
Medfield State  
Hospital

*Then:*

Demolition of the  
Laundry Building

*Now:*

*Remediating the  
Solvent Plume*



# Training Services

- Provide Training on Environmental Matters
  - Internally to DCAMM staff and project teams
  - Through Massachusetts Facilities Managers Association (MAFMA), provide training and updates periodically to state facility managers

# Contract Administrator for PRF67

- Statewide Professional Environmental Services Contract
- Work with Operational Services Division (OSD) and Supplier Diversity Office (SDO)
- Expires November 2021
  - Request for Bids for new contract (PRF77) in coming months

# Notification of Site Contamination

- When contamination is identified during a project that DCAMM is conducting on behalf of your agency at a building or property under your care and control...
  - Your agency is the Potentially Responsible Party (PRP) that must notify MassDEP of a reportable quantity (RQ) or reportable concentration (RC)
    - Consultant and/or DCAMM can make initial notification on your behalf
  - DCAMM Environmental Services can provide expertise and peer review to support you through the process



# PCBs ....

- Consult and vet fully prior to conducting any PCB sampling and analysis of building materials and/or property
- EPA's TSCA PCB office allows two separate routes for dealing with potential PCB-containing materials
- The route your facility or project takes can have significant implications, including costs and timing

# Environmental Services

Any questions?

**SUSAN RUCH**

Director of Environmental Services

Office of Facilities Management and Maintenance

Division of Capital Asset Management & Maintenance

MOBILE 617-875-0243

[susan.ruch2@mass.gov](mailto:susan.ruch2@mass.gov)



# CAMIS CORNER

CAMIS Service Request Process  
Enhancement Custom CM  
Notes/Directions





**CAMIS Team is pleased to announce**

**SERVICE REQUEST Process Improvement**

**Benefits:** Reduce/Eliminate Administrative non-essential work

**Improve Data Quality**

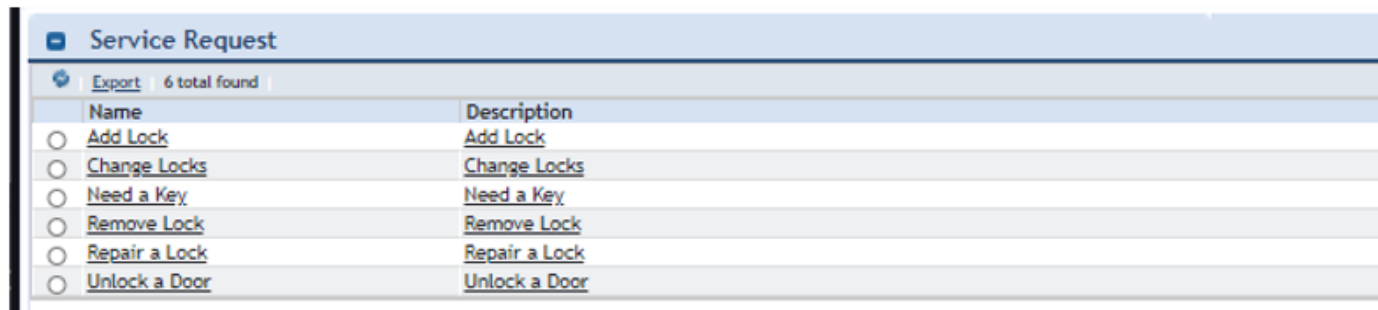
**Save Technician "Investigation" time**



## CUSTOMIZING SERVICE REQUEST INSTRUCTIONS

### Service Requests

**Name & Description** fields were established as standard, high-level categories Common to all CAMIS users statewide.



The screenshot displays a web application interface for 'Service Request'. At the top, there is a header bar with a blue background and the text 'Service Request'. Below the header, there is a sub-header bar with a light blue background containing an 'Export' button and the text '6 total found'. The main content area is a table with two columns: 'Name' and 'Description'. The table contains six rows of data, each with a radio button in the 'Name' column and a corresponding description in the 'Description' column. The data rows are: 'Add Lock', 'Change Locks', 'Need a Key', 'Remove Lock', 'Repair a Lock', and 'Unlock a Door'. All text in the table is underlined.

| Name                                       | Description          |
|--|----------------------|
| <input type="radio"/> <u>Add Lock</u>      | <u>Add Lock</u>      |
| <input type="radio"/> <u>Change Locks</u>  | <u>Change Locks</u>  |
| <input type="radio"/> <u>Need a Key</u>    | <u>Need a Key</u>    |
| <input type="radio"/> <u>Remove Lock</u>   | <u>Remove Lock</u>   |
| <input type="radio"/> <u>Repair a Lock</u> | <u>Repair a Lock</u> |
| <input type="radio"/> <u>Unlock a Door</u> | <u>Unlock a Door</u> |

With this revision, Service Requests can be customized as needed with specific instructions:

## CUSTOMIZING SERVICE REQUEST INSTRUCTIONS


Requester navigates thru process of submitting a work request

They will see additional custom instructions

### Associated by

Request Type

Building Location



| Service Request                                     |                               |   |
|---|-------------------------------|---|
| <a href="#">Export</a>   6 total found              |                               |   |
| Name  | Description                   | Additional Instructions                                       |
| <input type="radio"/> <a href="#">Add Lock</a>      | <a href="#">Add Lock</a>      | <a href="#">Take a picture/upload to request</a>              |
| <input type="radio"/> <a href="#">Change Locks</a>  | <a href="#">Change Locks</a>  | <a href="#">Record the Temperature</a>                        |
| <input type="radio"/> <a href="#">Need a Key</a>    | <a href="#">Need a Key</a>    | <a href="#">Call Security</a>                                 |
| <input type="radio"/> <a href="#">Remove Lock</a>   | <a href="#">Remove Lock</a>   | <a href="#">Note the Time it happened</a>                     |
| <input type="radio"/> <a href="#">Repair a Lock</a> | <a href="#">Repair a Lock</a> | <a href="#">Is Safety Issue? Yes or No</a>                    |
| <input type="radio"/> <a href="#">Unlock a Door</a> | <a href="#">Unlock a Door</a> | <a href="#">Do not Select this category if you need a key</a> |





DIVISION OF  
CAPITAL ASSET  
MANAGEMENT &  
MAINTENANCE

Home

My Reports

Portfolio

Requests

Tasks

Maintenance

Home > Temperature

General

Notifications

Notes & Documents

Audit Actions

(Instruction): To submit a Heating & AC request, complete the form below then click Submit.

★ Request is for ☒ Me  
☐ Someone Else

#### Request Details

In case of an emergency, please call the Control Center at 617-727-1000. The Control Center is staffed 24/7.

★ Building

Floor

Room

★ Organization

#### Service Request

 [Export](#) | 4 total found

| Name  | Description  |
|---|--|
| <input type="radio"/> <a href="#">HVAC Service</a>  | <a href="#">HVAC Service</a>                                     |
| <input type="radio"/> <a href="#">Noisy AC Unit</a> | <a href="#">Noisy AC Unit</a>                                    |
| <input type="radio"/> <a href="#">Room Too Cold</a> | <a href="#">It is too cold in the caller's current location.</a> |
| <input type="radio"/> <a href="#">Room Too Warm</a> | <a href="#">It is too warm in the caller's current location</a>  |





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Open In New Window

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Audit Actions

(Instruction): To submit a Heating & AC request, complete the form below then click Submit.

\* Request is for ☒ Me  
☐ Someone Else

#### Request Details

In case of an emergency, please call the Control Center at 617-727-1000. The Control Center is staffed 24/7.

\* Building Fire Academy Building

Floor

Room

\* Organization Department of Fire Services

#### Service Request



Export 4 total found

| Name                                | Description                                      | Additional Instructions (SAM)          |
|-------------------------------------|--|--|
| <input type="radio"/> HVAC Service  | HVAC Service                                     |  |
| <input type="radio"/> Noisy AC Unit | Noisy AC Unit                                    |  |
| <input type="radio"/> Room Too Cold | It is too cold in the caller's current location. | Record actual temperature if possible  |
| <input type="radio"/> Room Too Warm | It is too warm in the caller's current location  | Record actual temperature if possible. |



Service Matrix and Request Classes - Update Request Notes on SAMs - IBM TRIRIGA - Google Chrome

camis.dcp.state.ma.us/html/en/default/reportTemplate/viewPageReport.jsp

Service Matrix and Request Classes - Update Request Notes on SAMs

Date : 03/31/2021 12:06:06

Service Matrix and Request Classes - Update Request Notes on SAMs

192 total found Apply Filters Clear Filters Show Less Filters

Geography Contains

|                          | Building Name         | Building code (Hierarchy Path)   | Request Class | ADD Note/Instructions by SR Class & Location | Service Agreement                        | Service Class | Customer Organization |
|--------------------------|-----------------------|--|---------------|--|--|---------------|-----------------------|
| <input type="checkbox"/> | fire                  | stow   | Contains      | Contains                                     | Contains                                 | Contains      | Contains              |
| <input type="checkbox"/> | Fire Station Building | \\Locations\Sites\Massachusetts Firefighting Academy - Stow\432DFS1000 Fire Station Building | Pest Control  |  | DFS00 Stow Maintenance Service Agreement | Facilities    | Organizations         |
| <input type="checkbox"/> | Fire Academy Building | \\Locations\Sites\Massachusetts Firefighting Academy - Stow\432DFS0901 Fire Academy Building | Pest Control  |  | DFS00 Stow Maintenance Service Agreement | Facilities    | Organizations         |
| <input type="checkbox"/> | Fire Station Building | \\Locations\Sites\Massachusetts Firefighting Academy - Stow\432DFS1000 Fire Station Building | Doors         | Building Envelope                            | DFS00 Stow Maintenance Service Agreement | Facilities    | Organizations         |
| <input type="checkbox"/> | Fire Academy Building | \\Locations\Sites\Massachusetts Firefighting Academy - Stow\432DFS0901 Fire Academy Building | Doors         | Building Envelope                            | DFS00 Stow Maintenance Service Agreement | Facilities    | Organizations         |
| <input type="checkbox"/> | Fire Station Building | \\Locations\Sites\Massachusetts Firefighting Academy - Stow\432DFS1000 Fire Station Building | Facade        | Building Envelope                            | DFS00 Stow Maintenance Service Agreement | Facilities    | Organizations         |
| <input type="checkbox"/> | Fire Academy Building | \\Locations\Sites\Massachusetts Firefighting Academy - Stow\432DFS0901 Fire Academy Building | Facade        | Building Envelope                            | DFS00 Stow Maintenance Service Agreement | Facilities    | Organizations         |
| <input type="checkbox"/> | Fire Station Building | \\Locations\Sites\Massachusetts Firefighting Academy - Stow\432DFS1000 Fire Station Building | Roof          | Building Envelope                            | DFS00 Stow Maintenance Service Agreement | Facilities    | Organizations         |
|                          |                       |  |               | Building Envelope                            |  |               |                       |

## CUSTOMIZING SERVICE REQUEST INSTRUCTIONS



[camishelpdesk.dcam@mass.gov](mailto:camishelpdesk.dcam@mass.gov)





# BUILDING AUTOMATION & INDUSTRY TRENDS

David Hodge  
Burnell Controls, Inc.  
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781-602-0107



# Agenda

01

Burnell Controls  
Introduction  
“who we are”

02

HVAC Building  
Automation  
Overview &  
System Remote  
Access

03

Industry Trends

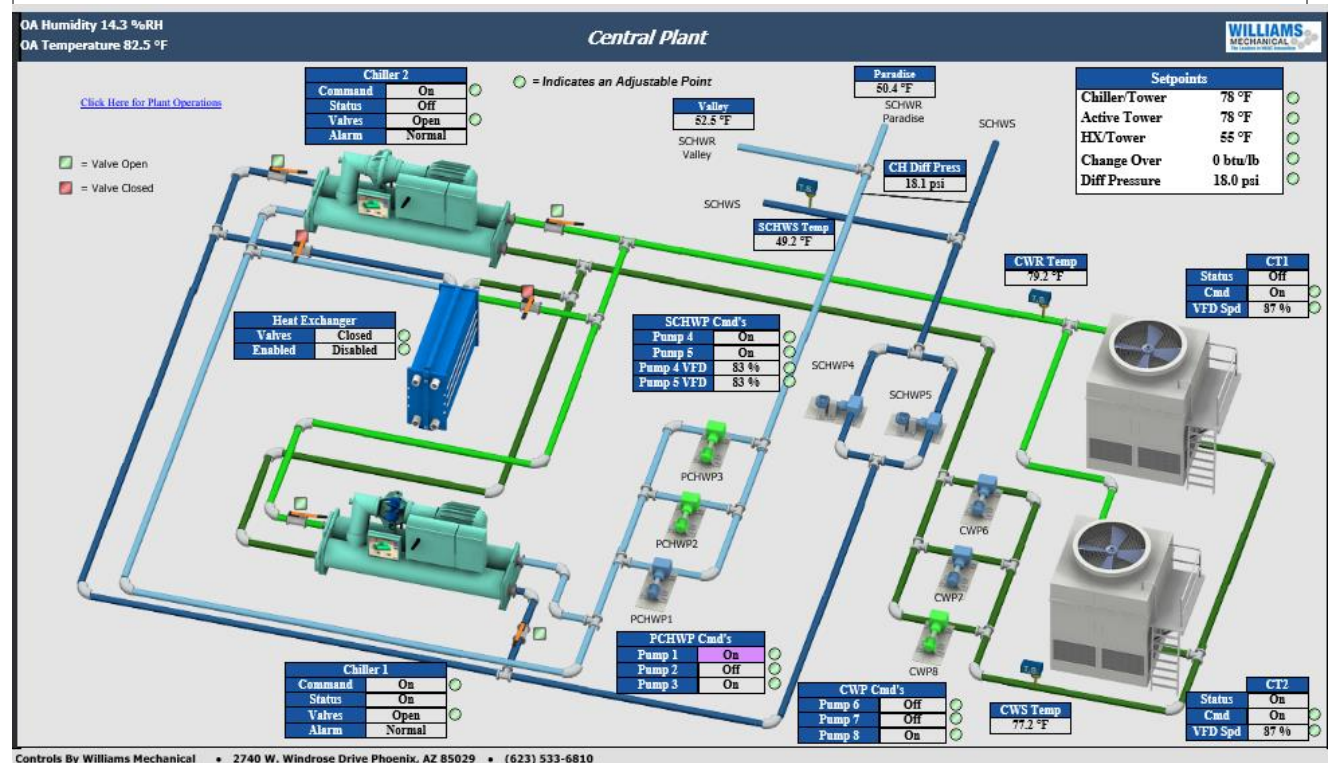
- Cybersecurity
- iBMS
  - IP Controllers
- Analytics – Healthy Buildings



- Founded in 1994 by Tom Burnell
  - Headquarters located in Danvers, MA
- Full Service Building Automation and Energy Management Company
  - Design
  - Program
  - Installation
  - Integration
  - Service & Maintenance
- Products & Systems
  - Honeywell
  - Vykron
  - Johnson Controls
  - Blue Ridge Technologies – Lighting Control

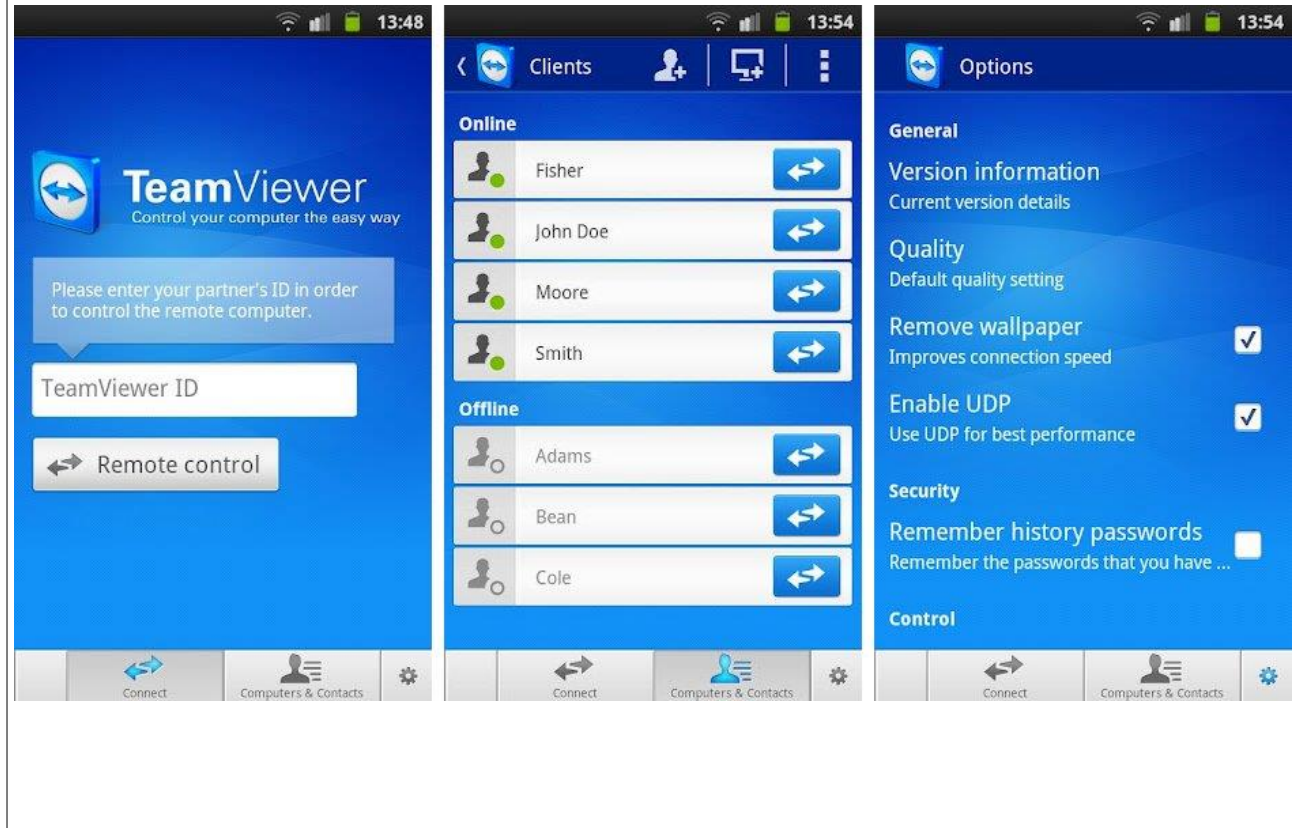
# What is a Building Automation System (BAS)

- Reduces energy consumption through scheduling, programming unique SOO, and troubleshooting
- Ability to Monitor and Control different HVAC Systems from a User Interface



# Remote Access for your facilities

- How are you managing a building while working from home?
- COVID -changed the way we work
- Facility Engineers need a secure way to access their systems no matter their location
- Variety of ways to access your system
  - Key is to have a separate BAS Network isolated from other systems
  - Build Firewall/VPN vs. Public IP
  - VPN
  - Remote desktop



# BAS Industry Trends

## Cybersecurity

- Don't expose your devices on the Internet
- Network Security Strategy
- Change "Factory Default" Credentials
- Keeping your BAS software up to date with newest revision release
- Encrypted Communications

## Integrated Building Automation Systems (iBMS)

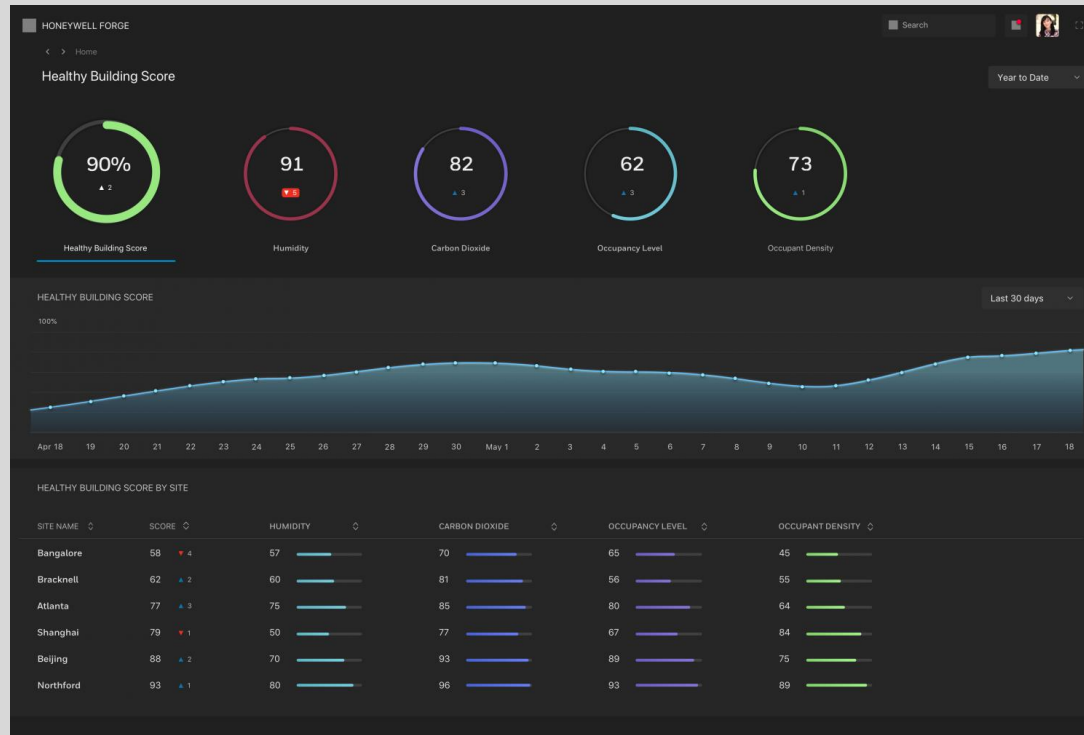
- The industry is looking for a Single Pane of Glass to monitor & control all systems
- Lighting, EPMS, Access Control, Security, Solar Panels, Electric Vehicle Charging Stations, etc.
- IP Level Controllers and network topologies

## Building Analytics

- Occupancy & Social Distance Requirements
- Condition Based Maintenance
- Indoor Air Quality - 90% of our time is spent indoors
  - UV Lighting
- Measure Particles through space and unit sensors - allows units to adjust based off of demand



# Healthy Buildings & Analytics Dashboard





# Q & A THANK YOU!

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**Thanks for Coming**

**Next meeting Fall 2021**

